TECHNICAL WORK MAY NOT BEGIN PRIOR TO CTR ACCEPTANCE NASA/GODDARD SPACE FLIGHT CENTER REQUEST FOR TASK PLAN / TASK ORDER CONTRACTOR CONTRACT NO TASK NO. JOB ORDER NUMBER TASK NO. AMENDMENT NAS5-255 99124 QSS Group, Inc. 563-458-40-31-89 2000 TASK TITLE: (NTE 80 characters; include Project name) Characterization and Destructive Physical Analysis of HST cells. APPROVALS: (Type or print name and sign) MISSELECTION OF THE ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR) MAIL PHONE 4/3/2000 Gopal Rao 563 563 301-286-6654 CODE Marlon Enciso 563 301-286-5845 CONTRACTING OFFICER'S TECHNICAL REPRESENT CODE Robert Lebair 568 301-286-6382 CONTRACTING OFFICER'S QUALITY REP. DESIGNATED FAM: FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) [X] NO 1 1 YES The contractor shall identify and explain the reason for any deviations, exceptions, (To be completed by Contracting Officer) C.O. Requested Quote on: or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. Date: The contractor shall complete and submit the required Reps and Certs. Contractor will develop specification or statement of work under this task for a future procurement. [X] NO [] YES Flight hardware will be shipped to GSFC for testing prior to final delivery. [] NO Government Furnished Property/Facilities: [] NO [X] YES - SEE LIST OF GFP (offsite only) / FACILITIES (onsite only) Onsite Performance: If yes: [X] NO [] YES [] TOTAL [] PARTIAL If partial, indicate onsite work in SOW by asterisk (*) Surveillance Plan Attached: [X] NO [] YES Highlighted Contract Clauses: (to be completed by Contracting Officer) The effective date of this task order is the same as the date of the Contracting Officer's signature below. INCENTIVE FEE STRUCTURI (check one) _ No. 3 No. 4 No. 5 No. 1 Cost 10% 50% 25% 25% % Schedule 50% % 15% 25% 25% Technical 75% 25% 50% 25% (To be completed by Contracting Officer) 23,913 The target cost of this task order is \$__ 169 The target fee of this task order is \$_ The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 24,082 The maximum fee is \$_ The minimum fee is \$0. AUTHORIZED SIGNATURE: ELIZABETH J. AUSTIN DING TO THE CONTRACT OLAUSE "TASK ASSIGNMENTS AND REPOR SIGNATURE OF CONTRACTINA DATE CONTRACTOR'S ACCEPTANG DATE AUTHORIZED SIGNATURE

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CTR APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO TASK NO		TAX BUILD NAMED IN STREET	
	NAS5-	TASK NO.	AMENDMENT	
QSS Group, Inc.	99124	255		

Applicable paragraphs from contract Statement of Work:

Function 2.D.7

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

The contractor shall provide services to perform Characterization of cells and Destructive Physical Analysis (DPA) of one (1) NiH2 cell for the HST Program. GSFC shall provide total ten (10) 93 Ah NiH2 cells. Of the ten three (3) cells will be shipped from MSFC. One of the three MSFC cells shall be subjected to DPA.

The contractor shall provide the following services:

Perform electrical characterization test on all ten(10) cells as follows:

- Provide cell capacities at 20, 10 and 0 degrees C.
- Perform Charge retention test at 10 degrees C.
- Provide special cell capacity at 10 degrees C charge at 9.3 A for 10 hrs. and 4 A for 14 hrs., open circuit for 1 hr., and discharge at 15 A.

Perform cell reversal test on three MSFC cells and one other selected cell per Dr. Zimmerman's procedure.

Present electrical characterization data to ATR and/or his representative.

Ship with ATR concurrence TBD cells to MSFC.

Prior to DPA of one of the three MSFC cells -

- Notify ATR or his representative of the cell teardown date and time.
- · Perform gas analysis prior to cell teardown.
- Take Photographs of cell components as the cell is opened.
- Inspect each component within the plate stack, inner case of cell, and cell terminals.
- Perform electrical, chemical, and metallographical analyses of cell components.

The contractor shall present the results from the electrical characterization test to the ATR within 72 hours of the completion. The contractor with ATR concurrence ship TBD number of cells to MSFC within 72 hours of Characterization data review. The contractor shall notify the ATR of cell teardown date and time 72 hours prior to the event. Upon completion of the DPA, the contractor shall submit a final report to the ATR within 14 days. The report shall include the contractor's technical recommendation on whether the cells are considered to be aerospace quality and of worthy for further testing at MSFC.

ATR's phone # - (301)286-6654, FAX # (301)286-1751, and email address - Gopalakrishn.M.Rao.1@gsfc.nasa.gov

PERFORMANCE SPECIFICATIONS:

All plans and testing under this task are to be produced and performed using aerospace cell testing Practice.

APPLICABLE DOCUMENTS:

None.

TASK END DATE:

7/31/00

MILESTONES/DELIVERABLES AND DATES:

Characterization test results Shipping of cells to MSFC Cell teardown date and time Complete DPA Interim Report Final Report

Within 72 hours of the completion

Within 72 hours of the Characterization data review

Within 72 hours after the completion of Characterization testing

Within 3 months of receipt of cell by the contractor

Within 3 days after completion of DPA Within 14 days after completion of DPA

PERFORMANCE STANDARDS:

Schedule:

On-time delivery of the above.

Technical: ATR's acceptance of the above.

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):

Gopal Rao, Code 563, B-20, Room 166